

WHAT IS CLAIMED IS:

- Sub A2*
1. A computer implemented method of modifying code to be compatible with a runtime library, wherein the code is received from a remote source, the method comprising the steps of:
 - 4 receiving a code segment from the remote source;
 - 5 tokenizing the code segment into a plurality of tokens;
 - 6 parsing the plurality of tokens so as to determine relationships between the
 - 7 plurality of tokens;
 - 8 translating the code segment into a modified code segment based on the
 - 9 determined relationships between the tokens such that the modified code segment is
 - 10 compatible with the runtime library.
 - 1 2. The method of claim 1, wherein the code segment is one of a
 - 2 JavaScript code segment, a Java code segment, an ActiveX code segment and a markup
 - 3 language segment.
 - 1 3. The method of claim 1, wherein the runtime library is linked to a
 - 2 browser application in a client device communicably coupled to a proxy server, and
 - 3 wherein the steps of receiving, tokenizing, parsing and translating the code segment are
 - 4 performed in the proxy server.
 - 1 4. The method of claim 3, further including the step of sending the
 - 2 modified code from the proxy server to the client device to be processed by the browser.
 - 1 5. The method of claim 3, wherein the client device is communicably
 - 2 coupled to the proxy server over the Internet.

1 6. The method of claim 1, wherein the proxy server performs the
2 steps of receiving, tokenizing, parsing and translating the code segment.

1 7. The method of claim 1, wherein the runtime library is linked to a
2 browser application in a client device communicably coupled to a proxy server, wherein
3 the step of receiving the code segment from the remote source is performed in the proxy
4 server, wherein the steps of tokenizing, parsing and translating the code segment are
5 performed in the client device, and wherein the method further includes the step of
6 sending the code segment from the proxy server to the client device.

1 8. The method of claim 7, wherein the code segment includes a
2 dynamically assembled portion.

1 9. The method of claim 7, wherein the client device is communicably
2 coupled to the proxy server over the Internet.

1 10. The method of claim 1, wherein the step of translating includes
2 translating a first function call to a second function call, wherein the second function call
3 is compatible with the runtime library.

1 11. The method of claim 1, wherein the step of translating includes
2 translating a function call to a variable, wherein the variable is compatible with the
3 runtime library.

1 12. The method of claim 1, wherein the step of translating includes
2 translating a first variable to a second variable, wherein the second variable is compatible
3 with the runtime library.

1 13. The method of claim 1, wherein the step of translating includes
2 translating a variable to a function call, wherein the function call is compatible with the
3 runtime library.

1 14. The method of claim 1,
2 wherein the code segment includes one or more first elements selected
3 from the group consisting of:
4 digits, characters, keywords, literals, identifiers, operators, expressions,
5 statements, variables, regular expressions, functions, arguments and programs;
6 wherein the modified code segment includes one or more second elements
7 selected from the group consisting of:
8 digits, characters, keywords, literals, identifiers, operators, expressions,
9 statements, variables, regular expressions, functions, arguments and programs;
10 and
11 wherein the second elements are compatible with the runtime library.

1 15. A computer readable medium containing instructions for
2 controlling a computer system to modify a code segment received from a remote source
3 to be compatible with a runtime library, by:
4 tokenizing the code segment into a plurality of tokens;
5 parsing the plurality of tokens so as to determine relationships between the
6 plurality of tokens;
7 translating the code segment into a modified code segment based on the
8 determined relationships between the tokens such that the modified code segment is
9 compatible with the runtime library.

1 16. The computer readable medium of claim 15, wherein the code
2 segment is one of a JavaScript code segment, a Java code segment, an ActiveX code
3 segment and a markup language segment.

1 17. The computer readable medium of claim 15, further comprising
2 instructions for handling an exception when an exception occurs.

1 18. The computer readable medium of claim 15, wherein the runtime
2 library is implemented on a client device communicably coupled to a proxy server.

1 19. The computer readable medium of claim 15, wherein the
2 instructions for translating include instructions for translating a function call to a variable,
3 wherein the variable is compatible with the runtime library.

1 20. The computer readable medium of claim 15, wherein the
2 instructions for translating include instructions for translating a first variable to a second
3 variable, wherein the second variable is compatible with the runtime library.

1 21. The computer readable medium of claim 15, wherein the
2 instructions for translating include instructions for translating a first function call to a
3 second function call, wherein the second function call is compatible with the runtime
4 library.

1 22. The computer readable medium of claim 15, wherein the
2 instructions for translating include instructions for translating a variable to a function call,
3 wherein the function call is compatible with the runtime library.

1 23. The computer readable medium of claim 15,
2 wherein the code segment includes one or more first elements selected
3 from the group consisting of:

4 digits, characters, keywords, literals, identifiers, operators, expressions,
5 statements, variables, regular expressions, functions, arguments and programs;
6 wherein the modified code segment includes one or more second elements
7 selected from the group consisting of:
8 digits, characters, keywords, literals, identifiers, operators, expressions,
9 statements, variables, regular expressions, functions, arguments and programs;
10 and
11 wherein the second elements are compatible with the runtime library.